

NAVAL MINE WARFARE ENGINEERING ACTIVITY -- DISCHARGED BATTERY ALKALINE, MK108-1 --  
6135-01-046-6803

===== Product Identification =====

Product ID:DISCHARGED BATTERY ALKALINE, MK108-1  
MSDS Date:02/11/1991  
FSC:6135  
NIIN:01-046-6803  
MSDS Number: BMDKM  
=== Responsible Party ===  
Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY  
Address:CODE 60 BUILDING 1959  
City:YORKTOWN  
State:VA  
ZIP:23691-5076  
Cou  
ntry:US  
Info Phone Num:804-887-4930  
Emergency Phone Num:804-887-4930  
Preparer's Name:ANN ALLEN  
CAGE:30265  
=== Contractor Identification ===  
Company Name:HOECHST CELANESE CHEM GROUP  
Box:City:DALLAS  
State:TX  
ZIP:75356-9320  
Country:US  
Phone:214-689-4000  
CAGE:10001  
Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY  
Address:CODE 60 BUILDING 1959  
Box:City:YORKTOWN  
State:VA  
ZIP:23691-5076  
Country:US  
Phone:804-887-4930  
CAGE:30265

===== Composition/Information on Ingredients =====

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ingred Name:MERCURY  
CAS:7439-97-6  
RTECS #:OV4550000  
Fraction by Wt: 0.01%  
OSHA PEL:0.1 MG/M3, S, C  
ACGIH TLV:0.05 MG/M3, S  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE  
CAS:7439-96-5  
RTECS #:OO9275000  
Other REC Limits:1 MG/M3 FUME;3 STEL  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:POTASSIUM HYDROXIDE  
CAS:1310-58-3  
RTECS #:TT2100000  
Fraction by Wt: 10%  
OSHA PEL:2 MG/M3, C  
ACGIH TLV:2 MG/M3, C  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:MANGANESE DIOXIDE

CAS:1313-13-9  
RTECS #:OP0350000  
Fraction by Wt: 10%  
Other REC Limits:1 MG/M3 FUME;3 STEL  
OSHA PEL:5 MG/M3 DUST, C (MN)  
ACGIH TLV:5 MG/M3 (MN DUST)

Ingred Name:CARBON BLACK  
CAS:1333-86-4  
RTECS #:FF5800000  
OSHA PEL:3.5 MG/M3  
ACGIH TLV:3.5 MG/M3

Ingred Name:GRAPHITE  
CAS:7782-42-5  
RTECS #:MD9659600  
Fraction by Wt: 5%  
Other REC Limits:15 MPPCF (MFR)  
OSHA PEL:15 MPPCF RDUST  
ACGIH TLV:2 MG/M3 RDUST; 9293

Ingred Name:ZINC OXIDE (MFR REC LIMITS: 5 MG/M3, C)  
CAS:1314-13-2  
RTECS #:ZH4810000  
Other REC L

imits:5 MG/M3 FUME;10 STEL  
OSHA PEL:15MG/M3 TDUST/5 FUME  
ACGIH TLV:10MG/M3 TDUST; 9293

===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:MERCURY IS EXPERIMENTAL TERATOGEN & GI  
& CNS POISON. MANGANESE IS AN EXPERIMENTAL TERATOGEN & MUTAGEN.  
ZINC OXIDE IS A HUMAN PULMONARY DISEAS  
E PRODUCER. IN FIRE  
SITUATION, CELLS MAY RELEASE HAZ SUBSTA NCES. (ACUTE) INHAL: MAY  
CAUSE IRRIT/METAL FUME FEVER IN FIRE SITUATION. INGEST: MATLS ARE  
POISONOUS. (EFTS OF OVEREXP)  
Explanation of Carcinogenicity:NOT RELEVANT  
Effects of Overexposure:HLTH HAZ: SKIN/EYE: MATLS MAY CAUSE EYE & SKIN  
IRRIT BY VAPOR/DIRECT CONT. (CHRONIC) NOT LIKELY UNDER NORMAL USE.  
Medical Cond Aggravated by Exposure:RESPIRATORY INFECTIONS AND  
DISEASES, SKIN DISORDERS.

===== Fir  
st Aid Measures =====

First Aid:INHAL:REMOVE TO FRESH AIR, USE ARTF RESP IF NEEDED. CALL MD.  
EYE:FLUSH FOR AT LEAST 15 MIN W/FRESH RUNNING WATER, OCCASNLY  
LIFTING UPPER & LOWER LIDS. CALL MD. SKIN:THORO WASH AFFECTED AREA  
UNTIL NO T TRACE OF MATL REMAINS. INGEST:NOT LIKELYUNDER NORMAL USE.  
IF INGEST OCCURS, CALL MD IMMED. DRINK LRG QTY OF WATER. EXPOS IN  
FIRE: REMOVE VICTIM FROM FIRE HAZ TO FRESH AIR. CALL MD.

===== Fire Fighting Measures  
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Flash Point:NOT KNOWN  
Extinguishing Media:IN BULK STORAGE USE CO\*2, FOAM OR DRY POWDER. WATER  
MAY CAUSE ELECTRICAL SHORTS.  
Fire Fighting Procedures:WEAR NIOSH/MSHA APPRVD SCBA & FULL PROT EQUIP  
. AVOID CONTACT WITH HAZARDOUS DECOMPOSITION PRODUCTS.  
Unusual Fire/Explosion Hazard:CELLS MAY RUPTURE WHEN EXPOSED TO  
EXCESSIVE HEAT.

===== Accidental Release Measures =====

Spill Release Procedures:BATTERIES ARE A DRY SOLID & CAN BE HANDL

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EASILY WITH SHOVELS OR SIMILAR EQUIPMENT. WHEN ACCUMULATING LRG QTYs OF UNDISCHARGED BATTERIES FOR DISP PACK IN NON-CONDUCTIVE INSULATING MATERIAL. AVOID HEAT & WATER. USE RUBBER GLOVES FOR (SUPP DATA)

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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===== Handling and Storage =====

Handling and Storage Precautions:DO NOT STORE UNPACKAGED CELLS TOGETHER SO CONTACTS CAN TOUCH. THIS SITUATION WILL RESULT IN CELL SHORTING AND HEAT BUILD-UP.

UILD-UP.

Other Precautions:DO NOT CHARGE, OVERHEAT (GREATER THAN 160F), OR OPEN CELLS. AVOID CONTACT WITH WATER, SPARKS, AND OPEN FLAMES.

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===== Exposure Controls/Personal Protection =====

Respiratory Protection:NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN . NONE NEEDED UNDER NORMAL USE.

Ventilation:NONE NEEDED UNDER NORMAL USE.

Protective Gloves:NONE NEEDED UNDER NORMAL USE.

Eye Protection:NONE NEEDED UNDER NORMAL USE.

Other Protective Equipment:

NONE REQUIRED UNDER NORMAL USE.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

SPILL PROC: CLEANING UP SPILLS OR HANDLING INTERNAL PARTS OF CELLS. USE ADEQUATE VENTILATION AND AVOID CONTACT OF CELL INTERNAL COMPONENTS WITH SKIN OR EYES.

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===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text:>212F,>100C

Vapor Density:>1

Spec Gravity:>1

Evaporation Rate & Reference:+1 (NK)

Solubility in Water:NEGLIGIBLE

Appearance

and Odor:BLACK SOLID GRANULES WITH NO APPRECIABLE ODOR, ENCASED IN BATTERY ASSEMBLY.

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===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

KEEP AWAY FROM WATER.

Stability Condition to Avoid:EXCESSIVE HEAT AND FIRE (HEATING ABOVE 160F), CHARGING.

Hazardous Decomposition Products:IN A FIRE SITUATION, MERCURY VAPOR, MANGANESE, AND ZINC OXIDE FUMES MAY BE EMITTED.

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===== Disposal Considerations =====

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Waste Disposal Methods:DISCARD IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DISPOSAL BY LANDFILL MAY BE PROHIBITED IN SOME AREAS.

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